

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020466**Date Inspected:** 10-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

Bay 14

WELDING:

Segment 14W

This QA Inspector observed ZPMC qualified welding personnel identified as 066398 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020AG-004; located On Orthotropic Box Girder (OBG) FB3317 to EP3030A CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Yan Bao Jia. This QA Inspector observed a welding current of approximately 158 amps and 24.2 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Yan Bao Jia was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2213-TC-U4b-FCM-1. See attached photo for further details.

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This QA Inspector observed ZPMC qualified welding personnel identified as 069683 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020D-061; located On Orthotropic Box Girder (OBG) FB-3343 to LD 3051A CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Yan Bao Jia. This QA Inspector observed a welding current of approximately 240 amps and 26.4 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Yan Bao Jia was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2232-TC-U4c-F-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 069683 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020BC-012; located On Orthotropic Box Girder (OBG) Vertical Anchor Plate to SA3444A Fillet Weld; ABF Quality Assurance (QA) is identified as Mr. Xiao Jun Peng. ABF Quality Assurance (QA) Mr. Xiao Jun Peng was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-P-2114-FCM-1.

Segment 13BW

This QA Inspector observed ZPMC qualified welding personnel identified as 067888 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3014D-350; located On Orthotropic Box Girder (OBG) Deck Panel Diaphragm to Upper Floor Beam Flange CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Cao Hai Zhou. This QA Inspector observed a welding current of approximately 301 amps and 25.8 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Cao Hai Zhou was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3014B-021; located On Orthotropic Box Girder (OBG) Deck Panel Diaphragm to Upper Floor Beam Flange CJP Weld; ABF Quality Assurance (QA) is identified as Mr. Cao Hai Zhou. This QA Inspector observed a welding current of approximately 288 amps and 26.4 volts and the base material appears to have been being preheated by an electrical heating elements prior to welding. ABF Quality Assurance (QA) Mr. Cao Hai Zhou was onsite monitoring the welding variables. The welding variables recorded by QA appeared to comply with applicable WPS-B-T-2232-ESAB.

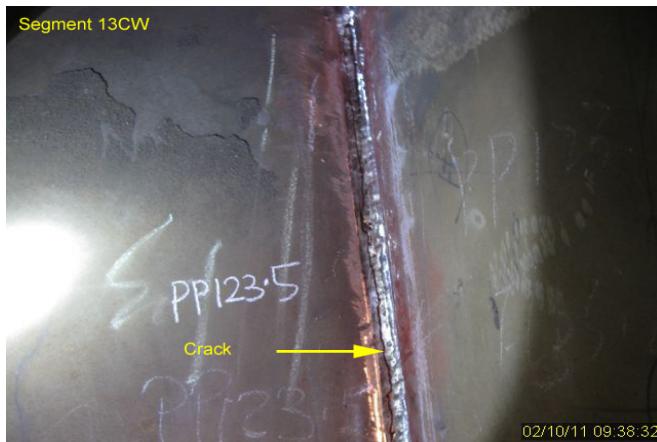
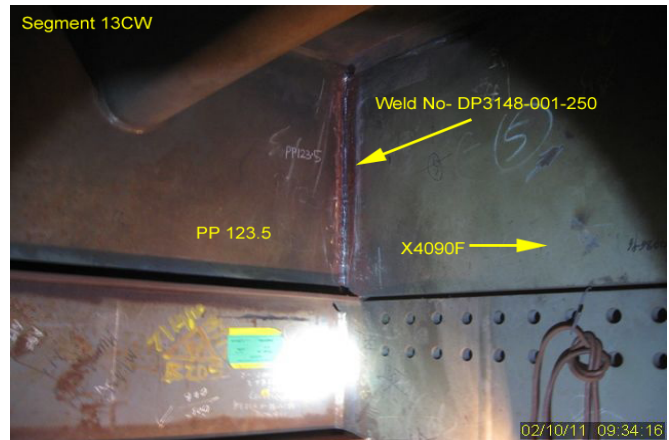
Segment 13CW

During the random visual inspection of welds located on Segment 13CW at north side, this Quality Assurance Inspector (QA) observed Crack on back gouged area of Deck panel Diaphragm to X4090F CJP weld. Entire length of the weld was observed to be Crack. This weld is a Complete Joint Penetration (CJP) weld joining the DP3140 to X4090F weld joint is identified as DP3140-001-250 at the Panel Point 123.5. OBG segment 13CW is located north Side of Bay 14 area; ZPMC prepare The Critical Welding Repair Report (CWRR) was B-CWR2781 Rev- 0. See attached photo for further details.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

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Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Prabhune,Manoj

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer